

REMARKS

Applicants have amended the specification at para [0001] to recite the priority claim for the present application. Applicants have amended the specification at para [0049] to recite “the general formula MO-aluminate” in place of “the general formula MO.” Support for this amendment appears throughout the application as filed, e.g., para [0030]-[0031].

Applicants have amended FIG. 1 to recite “Prior Art.” Support for this amendment appears throughout the specification as filed, e.g., at para [0018].

Applicants have amended claim 1 to recite that the particle is substantially free of unreacted alumina. Support for this amendment appears throughout the application as filed, e.g., para [0023]-[0031]. Applicants have amended claim 2 to recite “the general formula MO-aluminate” in place of “the general formula MO.” Support for this amendment appears throughout the application as filed, e.g., para [0030]-[0031].

Applicants reserve the right to file one or more divisional applications directed to any cancelled or non-elected subject matter and claiming priority to the present application.

None of these amendments adds new matter.

Priority

Applicants have submitted herewith a Petition for Acceptance of Unintentionally Delayed Claim for Priority Under 37 C.F.R. § 1.78(a)(2) or (a)(5), a Supplemental Application Data Sheet listing the correct priority information, as well as the required fee. Due to a clerical error, one of the parent applications was inadvertently omitted in the specification. The complete priority claim should read as follows:

This patent application is a divisional of application U.S. Serial No. 09/541,204, filed on April 3, 2000, now U.S. Patent No. 6,812,189, which is a continuation of U.S. Serial No. 09/256,621, filed on February 23, 1999, now abandoned, which claims the benefit of application U.S. Serial No. 60/075,680, filed on February 24, 1998.

Accordingly, applicants respectfully submit that the effective filing date of the instant claims is February 24, 1998, i.e., the filing date of provisional application number 60/075,680.

Drawings

The Examiner has objected to the drawings, and states that Figure 1 should be designated by a legend such as "Prior Art" since only that which is old is illustrated.

Applicants have submitted herewith a Replacement Sheet for FIG. 1 on which Figure 1 has been designated as "Prior Art" as requested by the Examiner. Accordingly, applicants respectfully request that the Examiner withdraw the objection.

Specification/Disclosure

The Examiner has objected to the specification because paragraph [0001] is written incorrectly. The Examiner also states that the status of parent application 09/541,204 should be updated.

As set forth in more detail above, applicants have submitted herewith a Petition for Acceptance of Unintentionally Delayed Claim for Priority Under 37 C.F.R. § 1.78(a)(2) or (a)(5), and have amended the specification to recite the priority claim, thus obviating the objection.

The Examiner has also objected to the specification as reciting "the general formula MO" rather than "the general formula MO-aluminate" at paragraph [0049].

Applicants have amended the specification as requested by the Examiner, thus obviating this objection.

Rejection Under 35 U.S.C. § 112, second paragraph

Claim 2 has been rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Specifically, the Examiner contends that the recitation of "the general formula MO" renders the claim vague, indefinite, and/or confusing.

Applicants respectfully submit that the claims as filed are definite and not confusing. However, to expedite prosecution, applicants have amended claim 2 to recite "the general formula MO-aluminate" as requested by the Examiner.

Accordingly, applicants respectfully request that the Examiner withdraw the rejection under 35 U.S.C. § 112, second paragraph.

Rejection Under 35 U.S.C. §§ 102(a)/103(a)

35 U.S.C. § 102(a)

Claims 1-19 stand rejected under 35 U.S.C. § 102(a) as allegedly anticipated by WO 99/44201.

Applicants respectfully submit that the rejection over WO 99/44201 has been rendered moot in view of the corrected priority claim, as set forth in more detail above.

35 U.S.C. § 103(a)

Claims 1, 2 and 4-13 stand rejected under 35 U.S.C. § 102(a) being obvious over US 5,254,516 (hereinafter, “Gupta ‘516”) in view of US 4,088,736 (hereinafter, “Courty ‘736”). The Examiner states that Gupta ‘516 teaches processes for removing reduced sulfur species in gaseous form via zinc titanate-based sorbents. The Examiner contends that Gupta ‘516 only fails to anticipate instant claims 1, 2 and 4-13 in that “a metal oxide-aluminate phase” are not disclosed within the zinc titanate-based sorbents. The Examiner states that ZnO is the reactive component of the sorbent of Gupta ‘516. The Examiner further states that Courty ‘736 teaches processes for purifying hydrogen sulfide-containing gas, wherein hydrogen sulfide is absorbed onto a mass comprising zinc oxide, alumina and a group IIA metal oxide, a large proportion of the metal oxide being in the form of aluminate or silicoaluminate, then regenerating the mass by passing oxygen containing gas therethrough. The Examiner also states that Courty ‘736 teaches that calcium and magnesium can be used. The Examiner therefore concludes that it would have been obvious to one of ordinary skill in the art to have supplemented the zinc titanate-based sorbents of Gupta ‘516 with the alumina-group II metal oxide materials of Courty ‘736 in order to improve sulfur removal. In view of the claim amendments, applicants respectfully traverse.

In particular, applicants have amended claim 1 to recite that the particle used in the claimed process is substantially free of unreacted alumina. Neither of Gupta ‘516 or Courty ‘736, either alone or in combination, render the present claims obvious because neither of Gupta ‘516 or Courty ‘736 teach the desirability of processes using a particle that is substantially free of unreacted alumina.

As the Examiner notes, Gupta ‘516 fails to disclose a metal oxide-aluminate phase within the zinc titanate-based sorbents.

Moreover, if anything, Courty '736 teaches away from the present invention. As the Examiner states, Courty '736 discloses "a mass comprising zinc oxide, *alumina*, and a group IIA metal oxide" (emphasis added). The compositions of Courty '736 include those compositions have a substantial stoichiometric excess of unreacted alumina (or alumina plus silica) as compared to calcium oxide content (Courty '736 at col. 1, line 64 to col. 2, line 7). Accordingly, Courty '736 does not teach the desirability of processes using a particle that is substantially free of unreacted alumina.

Applicants respectfully request that the Examiner withdraw the rejection under 35 U.S.C. §§ 102(a)/103(a).

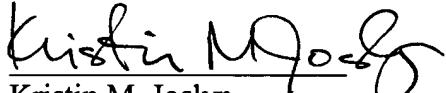
CONCLUSION

Applicants respectfully request that the Examiner enter the present amendment, consider the foregoing remarks, and allow the pending claims to issue. If the Examiner believes that a telephone interview would help expedite the successful prosecution of the claims, the undersigned attorney would be grateful for the opportunity to discuss any outstanding issues.

The Director is hereby authorized to charge any payments that may be due to Wilmer Cutler Pickering Hale and Dorr LLP Deposit Account No. 08-0219.

Respectfully submitted,

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Date: November 28, 2005

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